

CG01-5/10

Comb Generator

• Frequency Range: 30MHz-1GHz

• Frequency step: 5/10MHz



EMC Instruments corporation

Sales Partner:







Features

• Frequency Range: 30MHz-1GHz

• Frequency step: 5/10MHz

Description

The CG01 series Comb Generator is a radiated reference signal source. As a conducted signal source, the output is available directly from the connector. An antenna is supplied with the Comb Generator for generating radiated reference signals. It is a self-contained source of signals consisting of frequency harmonics at 5/10 MHz intervals, and is usable from 30MHz up to at least 1GHz.

The Comb Generator is powered by a rechargeable internal battery and external power cable connection. When fully charged , the battery allows continuous operation of up to 16 hours. The Comb Generator includes a



battery charger, USB cable, antennas and

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accessories that are shipped in a wooden storage box.

Application

The main application of Comb Generator is to quickly verfy conducted emissions test setups. And the most important application is troubleshooting OATS (Open Area Test Sites). An OATS must be completely calibrated before it is put into service.

With the Comb Generator, the test engineer will be able to perform quick a verification of the conducted test setup more frequently to assure accurate test results. For example, any problem or change with antenna, attenuator or receiver will be reflected in the Comb Generator data with the same setup. The same method can be utilized when EMC emissions measurements for a product varies with sites. The Comb Generator can be used to determine if the test sites are causing the variation.

Other uses of the Comb Generator include evaluating shielding effectiveness or resonance performance of enclosures for eletronic equipment.



Frequency Range	30MHz - 1GHz		
Frequency Step	5/10MHZ switchable		
Power Requirements	USB mini,+5Vdc		
Output connectors	50 ohm , SMA Female		
Charging time	8~10 Hours		
Usage time	16 Hours		
Size	120mm(W)*82mm(D)*85mm(H)		

Specification



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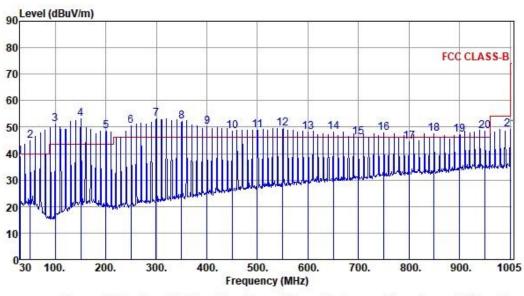




Measurement distance: 3m Semi-Anechoic chamber

RBW= 100kHz VBW= 300kHz

Vertical



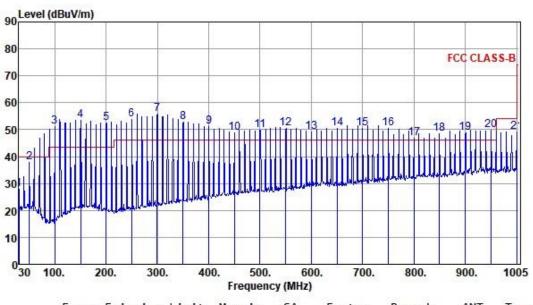
rroductory (mile)									
Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn	
	level			reading			High	Table	
MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg	
30.00	38.84	40.00	-1.16	47.88	-9.04	Peak			
49.95	44.95	40.00	4.95	52.95	-8.00	Peak	222		
99.83	51.10	43.50	7.60	64.46	-13.36	Peak			
150.18	53.00	43.50	9.50	61.02	-8.02	Peak			
200.05	48.60	43.50	5.10	57.95	-9.35	Peak			
249.93	50.32	46.00	4.32	59.33	-9.01	Peak			
299.80	53.24	46.00	7.24	60.62	-7.38	Peak			
350.15	52.00	46.00	6.00	58.03	-6.03	Peak			
400.03	50.12	46.00	4.12	54.71	-4.59	Peak			
449.90	48.58	46.00	2.58	51.96	-3.38	Peak	1222		
499.78	48.91	46.00	2.91	51.28	-2.37	Peak			
550.00	49.37	46.00	3.37	50.82	-1.45	Peak			
600.00	48.03	46.00	2.03	48.00	0.03	Peak			
650.00	48.05	46.00	2.05	47.25	0.80	Peak	1222		
700.00	46.16	46.00	0.16	44.56	1.60	Peak			
750.00	47.80	46.00	1.80	45.13	2.67	Peak			
800.00	44.62	46.00	-1.38	41.44	3.18	Peak			
850.00	47.48	46.00	1.48	43.52	3.96	Peak			
900.00	47.15	46.00	1.15	42.33	4.82	Peak			
950.00	48.48	46.00	2.48	42.77	5.71	Peak			
LIICI.		54.00	-4.77	42.92	6.31	Peak			
	MHz 30.00 49.95 99.83 150.18 200.05 249.93 299.80 350.15 400.03 449.90 499.78 550.00 600.00 700.00 750.00 800.00 850.00 900.00	1eve1 dBuV/m 30.00 38.84 49.95 44.95 99.83 51.10 150.18 53.00 200.05 48.60 249.93 50.32 299.80 53.24 350.15 52.00 400.03 50.12 449.90 48.58 499.78 48.91 550.00 49.37 600.00 48.03 650.00 48.05 700.00 46.16 750.00 47.80 800.00 47.48 900.00 47.15 ther: 950.00 48.48	1eve1 MHz dBuV/m dBuV/m 30.00 38.84 40.00 49.95 44.95 40.00 99.83 51.10 43.50 150.18 53.00 43.50 200.05 48.60 43.50 249.93 50.32 46.00 299.80 53.24 46.00 350.15 52.00 46.00 400.03 50.12 46.00 449.90 48.58 46.00 499.78 48.91 46.00 499.78 48.91 46.00 550.00 49.37 46.00 600.00 48.03 46.00 650.00 48.03 46.00 700.00 46.16 46.00 750.00 47.80 46.00 800.00 47.48 46.00 900.00 47.15 46.00	Freq. Emission Limit Margin level MHz dBuV/m dBuV/m dB 30.00 38.84 40.00 -1.16 49.95 44.95 40.00 4.95 99.83 51.10 43.50 7.60 150.18 53.00 43.50 9.50 200.05 48.60 43.50 5.10 249.93 50.32 46.00 4.32 299.80 53.24 46.00 7.24 350.15 52.00 46.00 6.00 400.03 50.12 46.00 4.12 449.90 48.58 46.00 2.58 499.78 48.91 46.00 2.91 550.00 49.37 46.00 3.37 600.00 48.03 46.00 2.03 650.00 48.03 46.00 2.03 650.00 48.04 46.00 0.16 750.00 47.80 46.00 1.80 800.00 47.48 46.00 1.48 900.00 47.15 46.00 1.15	Freq. Emission Limit Margin SA reading dBuV/m dBuV/m dB dBuV/m dBuV/m dB dBuV/m dBuV/m dB dBuV/m dB dBuV/m dBuV/m dBuV/m dBuV/m dB dBuV/m dBuV/m dB dBuV/m dBuV/m dBuV/m dBuV/m dBuV/m dBuV/m dB dBuV/m duv/m dBuV/m dBuV/m dbuV/m dbuV/m dbuV/m dbuV/m dbuV/m dbu	Freq. Emission Limit Margin reading dBuV dB 30.00 38.84 40.00 -1.16 47.88 -9.04 49.95 44.95 40.00 4.95 52.95 -8.00 99.83 51.10 43.50 7.60 64.46 -13.36 150.18 53.00 43.50 9.50 61.02 -8.02 200.05 48.60 43.50 5.10 57.95 -9.35 249.93 50.32 46.00 4.32 59.33 -9.01 299.80 53.24 46.00 7.24 60.62 -7.38 350.15 52.00 46.00 6.00 58.03 -6.03 400.03 50.12 46.00 4.12 54.71 -4.59 449.90 48.58 46.00 2.58 51.96 -3.38 499.78 48.91 46.00 2.91 51.28 -2.37 550.00 49.37 46.00 3.37 50.82 -1.45 600.00 48.03 46.00 2.03 48.00 0.03 650.00 48.05 46.00 2.05 47.25 0.80 700.00 46.16 46.00 0.16 44.56 1.60 750.00 47.80 46.00 1.80 45.13 2.67 800.00 47.48 46.00 1.48 43.52 3.96 900.00 47.15 46.00 1.15 42.33 4.82 there: 950.00 48.48 46.00 2.48 42.77 5.71	Freq. Emission Limit Margin reading dBuV dB 30.00 38.84 40.00 -1.16 47.88 -9.04 Peak 49.95 44.95 40.00 4.95 52.95 -8.00 Peak 99.83 51.10 43.50 7.60 64.46 -13.36 Peak 150.18 53.00 43.50 9.50 61.02 -8.02 Peak 200.05 48.60 43.50 5.10 57.95 -9.35 Peak 249.93 50.32 46.00 4.32 59.33 -9.01 Peak 299.80 53.24 46.00 7.24 60.62 -7.38 Peak 350.15 52.00 46.00 6.00 58.03 -6.03 Peak 40.03 50.12 46.00 4.12 54.71 -4.59 Peak 449.90 48.58 46.00 2.58 51.96 -3.38 Peak 499.78 48.91 46.00 2.91 51.28 -2.37 Peak 600.00 49.37 46.00 3.37 50.82 -1.45 Peak 600.00 48.03 46.00 2.03 48.00 0.03 Peak 650.00 49.37 46.00 2.05 47.25 0.80 Peak 700.00 46.16 46.00 0.16 44.56 1.60 Peak 750.00 47.80 46.00 1.80 45.13 2.67 Peak 800.00 47.48 46.00 1.48 43.52 3.96 Peak 900.00 47.15 46.00 1.15 42.33 4.82 Peak 10.01 cm free for the first f	Freq. Emission Limit Margin SA Factor reading MHz dBuV/m dBuV/m dB dBuV dB Cm 30.00 38.84 40.00 -1.16 47.88 -9.04 Peak 49.95 44.95 40.00 4.95 52.95 -8.00 Peak 99.83 51.10 43.50 7.60 64.46 -13.36 Peak 150.18 53.00 43.50 9.50 61.02 -8.02 Peak 200.05 48.60 43.50 5.10 57.95 -9.35 Peak 249.93 50.32 46.00 4.32 59.33 -9.01 Peak 299.80 53.24 46.00 7.24 60.62 -7.38 Peak 350.15 52.00 46.00 6.00 58.03 -6.03 Peak 400.03 50.12 46.00 4.12 54.71 -4.59 Peak 449.90 48.58 46.00 2.58 51.96 -3.38 Peak 449.978 48.91 46.00 2.91 51.28 -2.37 Peak 550.00 49.37 46.00 3.37 50.82 -1.45 Peak 600.00 48.03 46.00 2.03 48.00 0.03 Peak 550.00 49.37 46.00 3.37 50.82 -1.45 Peak 650.00 48.05 46.00 2.05 47.25 0.80 Peak 750.00 47.80 46.00 1.80 45.13 2.67 Peak 750.00 47.80 46.00 1.80 45.13 2.67 Peak 800.00 47.48 46.00 1.48 43.52 3.96 Peak 800.00 47.48 46.00 1.48 43.52 3.96 Peak 800.00 47.48 46.00 1.15 42.33 4.82 Peak 800.00 47.15 46.00 2.48 42.77 5.71 Peak 800.00 48.48 46.00 2.48 42.77 5.71 Peak	

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Horizontal



	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	30.00	27.88	40.00	-12.12	36.92	-9.04	Peak		
2	49.95	37.73	40.00	-2.27	45.73	-8.00	Peak		
3	99.83	51.03	43.50	7.53	64.39	-13.36	Peak	47.77	
4	150.18	53.57	43.50	10.07	61.59	-8.02	Peak		
5	200.05	52.38	43.50	8.88	61.73	-9.35	Peak	8444	
6	249.93	53.92	46.00	7.92	62.93	-9.01	Peak		
7	299.80	55.89	46.00	9.89	63.27	-7.38	Peak	V-1-1-	
8	350.15	52.88	46.00	6.88	58.91	-6.03	Peak		
9	400.03	51.16	46.00	5.16	55.75	-4.59	Peak		
10	449.90	48.83	46.00	2.83	52.21	-3.38	Peak	72533	
11	499.78	49.97	46.00	3.97	52.34	-2.37	Peak	47.77	47.77
12	550.00	50.32	46.00	4.32	51.77	-1.45	Peak		
13	600.00	49.26	46.00	3.26	49.23	0.03	Peak		
14	650.00	50.53	46.00	4.53	49.73	0.80	Peak		
15	700.00	50.38	46.00	4.38	48.78	1.60	Peak	HT.078	
16	750.00	50.37	46.00	4.37	47.70	2.67	Peak		
17	800.00	46.97	46.00	0.97	43.79	3.18	Peak		
18	850.00	48.53	46.00	2.53	44.57	3.96	Peak		
19	900.00	48.97	46.00	2.97	44.15	4.82	Peak	4555	
20	950.00	49.93	46.00	3.93	44.22	5.71	Peak		
21	1000.00	49.21	54.00	-4.79	42.90	6.31	Peak		

